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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,229	12/14/2000	Jin-Hong Kim	850795.90026	6287

7590 10/22/2004  
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EXAMINER	
PEREZ GUTIERREZ, RAFAEL	
ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/737,229

Applicant(s)

Kim

Examiner

Rafael Perez-Gutierrez

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2686

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 28, 2004 has been entered. **Claims 3-5** are still pending in the present application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 2686

3. **Claims 3 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Houde et al. (U.S. Patent # 5,978,678)** in view of **Chambers et al. (U.S. Patent # 6,587,688 B1)**, both of record.

Consider **claim 3**, Houde et al. clearly show and disclose a method of delivering an incoming call (reads on providing a wireless communication service) to an international roaming cellular mobile station 16(1) (abstract, figure 1, column 1 lines 18-20, and column 5 lines 1-5), the method comprising the steps of:

a) registering the international roaming cellular mobile station 16(1) at a switching node 34 (read as the mobile switching center (MSC)) (abstract, figure 1, column 2 lines 22-32, column 4 lines 28-67, and column 6 lines 7-12);

b) determining by the switching node 34 (MSC) whether a routing request signal (message) 206 for the international roaming cellular mobile station 16(1) is for an international call when the switching node 34 (MSC) receives the routing request signal (message) 206 (figures 1 and 3, column 2 lines 33-40, column 5 lines 22-43, and column 6 lines 24-36); and

c) generating an international routing number of the international roaming cellular mobile station 16(1) when the routing request signal (message) 206 is for an international call and sending the international routing number (abstract, figures 1 and 3, column 2 lines 37-55, column 5 line 29 - column 6 line 4, and column 6 lines 26-53).

Houde et al. further show and disclose that the switching node 34 (MSC) is integrated with a visitor location register (VLR) (figure 1 and column 3 line 64 - column 4 line 2).

However, Houde et al. do not specifically disclose that the switching node 34

Art Unit: 2686

(MSC/VLR) generates the international routing number.

In the same field of endeavor, Chambers et al. clearly show and disclose a method for providing international roaming service to an international roaming mobile station 1 (figure 1) in which a visitor location register (VLR) 3 in a foreign country generates an international routing number for the mobile station 1 when a mobile switching center (MSC) 2 receives a routing request (abstract, figures 1 and 3, and column 4 lines 16-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to generate, in the method of Houde et al., said international routing number at the switching node (MSC/VLR) 34 as taught by Chambers et al. for the purpose of generating international numbers where they are needed and facilitate the offering of the international roamer service (Chambers et al.; column 1 lines 55-58).

Consider **claim 5**, and **as applied to claim 3 above**, Houde et al., as modified by Chambers et al., further disclose that said international routing number includes a temporary local directory number, a country code, and a carrier code (read as the system operator code) (figure 3, column 2 lines 37-55, column 5 line 29 - column 6 line 4, and column 6 lines 26-53).

4. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Houde et al. (U.S. Patent # 5,978,678)** in view of **Chambers et al. (U.S. Patent # 6,587,688 B1)**, as applied to **claim 3 above**, and further in view of **Koster (U.S. Patent # 6,259,914 B1)**, each of record.

Consider **claim 4**, and **as applied to claim 3 above**, Houde et al., as modified by Chambers et al., clearly show and disclose the claimed method except the steps of:

Art Unit: 2686

d) assigning a virtual origination number to the international roaming cellular mobile station 16(1) in the switching node 34 (MSC/VLR) when a call origination request from the international roaming cellular mobile station 16(1) is received at the switching node 34 (MSC/VLR); and

e) sending a call connect message having the virtual origination number instead of a calling party number.

Koster clearly shows and discloses a method for implementing and allowing international wireless roaming (read as providing a wireless communication service) to an international roaming mobile station 100 (abstract, figure 1, and column 1 lines 7-10) comprising, among other steps, the steps of:

assigning a mobile directory number (read as the virtual origination number) to the international roaming mobile station 100 in the mobile switching center (MSC) 110 when a call origination request from the international roaming mobile station 100 is received at the MSC 110 (abstract, figure 1, column 3 lines 42-53, column 4 lines 3-14, and column 6 lines 8-17); and

sending a call setup request 510 (read as the call connect message) having the mobile directory number (read as the virtual origination number) instead of a calling party number (column 6 lines 30-46).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps in the calling method taught by Koster into the calling method taught by Houde et al., as modified by Chambers et al., in order to allow the international roaming cellular mobile station subscriber to also originate calls in the visiting

Art Unit: 2686

country without regard to the numbering scheme plan in said visiting country by assigning a mobile directory number (virtual origination number) that is, for example, a valid North American Numbering Plan (NANP) formatted number. By assigning such number, any call originated by a mobile station subscriber, of a cellular system located in, for example, Canada or the United States, in said visiting country would have been treated by any PSTN switch as a normal call (Koster; abstract and column 3 lines 53-55), thereby allowing the system to be configured easily and facilitate service to international roamers.

***Response to Arguments***

5. Applicant's arguments with respect to **claims 3-5** have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

220 S. 20<sup>th</sup> St.  
Crystal Plaza Two, Lobby, Room 1B03

Art Unit: 2686

Arlington, VA 22202

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.

  
Rafael Perez-Gutierrez  
R.P.G./rpg **RAFAEL PEREZ-GUTIERREZ**  
**PATENT EXAMINER**

October 18, 2004